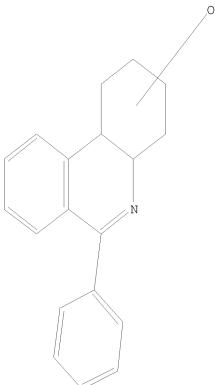
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Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SEARCH INITIATED 16:15:40 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 5882 TO ITERATE

2000 ITERATIONS 34.0% PROCESSED INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

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COST IN U.S. DOLLARS
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185.88
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FILE 'CAPLUS' ENTERED AT 16:15:51 ON 21 AUG 2009
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FILE COVERS 1907 - 21 Aug 2009 VOL 151 ISS 9
FILE LAST UPDATED: 20 Aug 2009 (20090820/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2009

CAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2009.

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This file contains CAS Registry Numbers for easy and accurate substance identification.

The ALL, BIB, MAX, and STD display formats in the CA/CAplus family of databases have been updated to include new citing references information. This enhancement may impact record import into database management software. For additional information, refer to NEWS 9.

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L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN GI

AB Title compds. I [wherein R1, R2 = OH or (cyclo)alkoxy; R3, R31 = H or alkyl; R4 = OH, alkoxy or alkylcarbonyloxy; R5 = H or alkyl; R6 = H, halo, alkyl or alkoxy; R7 = (un)substituted NH2; etc., or their salts and the N-oxides, and the salts of the N-oxides] were prepared as PDE4 inhibitors. For instance, II (R = OH) was synthesized by hydrolysis of its ester II (R = OAc) with Cs2CO3 in methanol. Representative I, including II (R = OH), were found to inhibit PDE4B2 with pIC50 values of 6.42 - 9.02. Therefore, I and pharmaceutical compns. thereof are useful for treating PDE-mediated disorders, such as respiratory diseases.

AN 2005:1026938 CAPLUS

DN 143:326233

TI Preparation of amido-substituted phenylphenanthridines as PDE4 inhibitors for the treatment of respiratory diseases

IN Schmidt, Beate; Kautz, Ulrich

PA Altana Pharma AG, Germany; Kautz, Ulrich

SO PCT Int. Appl., 107 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.				KIND DATE				APPLICATION NO.										
ΡI	WO 2005087745			A1 200509			0922	 2 WO 2005-EP51054						20050309					
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OS CASREACT 143:326233; MARPAT 143:326233

IT 865306-88-3P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

⁽inhibitor; preparation of amido-substituted phenylphenanthridines as PDE4 inhibitors for the treatment of respiratory diseases)

RN 865306-88-3 CAPLUS

CN Benzoic acid, 4-[(2R,4aR,10bR)-2-(acetyloxy)-1,2,3,4,4a,10b-hexahydro-8,9-dimethoxy-6-phenanthridinyl]-, 2-[3-(aminosulfonyl)phenyl]hydrazide, rel-(CA INDEX NAME)

Relative stereochemistry.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN GI

$$R^{3}$$
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AB Title compds. I [wherein R1, R2 = OH or (cyclo)alkoxy; R3, R31 = H or alkyl; R4 = OH, alkoxy or alkylcarbonyloxy; R5 = H or alkyl; R6 = H, halo, alkyl or alkoxy; R7 = (un)substituted SO2NH2; etc., or their salts and the N-oxides, and the salts of the N-oxides] were prepared as PDE4 inhibitors.

For instance, II (R = OH) was synthesized by hydrolysis of its ester II (R = OAc) with Cs2CO3 in methanol. Representative I, including II (R = OH), were found to inhibit PDE4B2 with pIC50 values of 7.52 - 10.06. Therefore, I and pharmaceutical compns. thereof are useful for treating PDE-mediated disorders, such as respiratory diseases.

- AN 2005:1026937 CAPLUS
- DN 143:347065
- TI Preparation of thio-containing phenylphenanthridines as PDE4 inhibitors for the treatment of respiratory diseases
- IN Schmidt, Beate; Flockerzi, Dieter; Hatzelmann, Armin; Zitt, Christof; Barsig, Johannes; Marx, Degenhard; Kley, Hans-Peter; Kautz, Ulrich
- PA Altana Pharma A.-G., Germany
- SO PCT Int. Appl., 76 pp.
- CODEN: PIXXD2
- DT Patent
- LA English
- FAN.CNT 1

FAN.CNT 1 PATENT NO.								111111111111111111111111111111111111111					DATE						
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		RW:	BW, AZ, EE, RO,	BY, ES, SE,	GM, KG, FI, SI,	KE, KZ, FR,	LS, MD, GB, TR,	MW, RU, GR,	TZ, MZ, TJ, HU, BJ,	NA, TM, IE,	SD, AT, IS,	SL, BE, IT,	SZ, BG, LT,	TZ, CH, LU,	UG, CY, MC,	ZM, CZ, NL,	ZW, DE, PL,	AM, DK, PT,	ZW
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				WO 2005-EP51052 W 20050309	
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				WO 2005-EP51052 W 20050309	
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				EP 2005-100692 A 20050201	
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				WO 2005-EP51052 W 20050309	
OS	CASREACT 143:347065;	MARPA	T 143:347065		
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	RL: PRPH (Prophetic)				
				nylphenanthridines as PDE4	
	inhibitors for th	e trea	tment of res	piratory diseases)	
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RN 1044702-80-8 CAPLUS
CN 2-Phenanthridinol, 9-(2,2-difluoroethoxy)-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-[4-(1-pyrrolidinylsulfonyl)phenyl]-, 2-acetate (CA INDEX NAME)

RN 1044702-83-1 CAPLUS

CN Methanesulfonamide, N-[4-[8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-2-hydroxy-9-methoxy-6-phenanthridinyl]phenyl]- (CA INDEX NAME)

RN 1044702-84-2 CAPLUS CN INDEX NAME NOT YET ASSIGNED

RN 1044702-85-3 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

RN 1044702-88-6 CAPLUS CN INDEX NAME NOT YET ASSIGNED

RN 1044702-91-1 CAPLUS

CN 2-Phenanthridinol, 9-ethoxy-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-[3-(methylsulfinyl)phenyl]-, (2R,4aR,10bR)-rel- (CA INDEX NAME)

Relative stereochemistry.

RN 1044702-92-2 CAPLUS

CN 2-Phenanthridinol, 9-ethoxy-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-[3-(methylthio)phenyl]-, (2R,4aR,10bR)-rel- (CA INDEX NAME)

Relative stereochemistry.

RN 1044702-93-3 CAPLUS

CN 2-Phenanthridinol, 9-(2,2-difluoroethoxy)-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-[4-(methylthio)phenyl]-, 2-acetate (CA INDEX NAME)

RN 1044702-96-6 CAPLUS

CN 2-Phenanthridinol, 9-ethoxy-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-[4-(methylsulfinyl)phenyl]-, (2R,4aR,10bR)-rel- (CA INDEX NAME)

Relative stereochemistry.

RN 1044702-99-9 CAPLUS CN INDEX NAME NOT YET ASSIGNED

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ΙT
     865291-76-5P
                    865291-77-6P
                                    865291-78-7P
     865291-79-8P
                    865291-81-2P
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RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(inhibitor; preparation of thio-containing phenylphenanthridines as PDE4 inhibitors for treatment of respiratory diseases)

RN 865291-76-5 CAPLUS

CN Benzenesulfonamide, N-[4-[(2R, 4aR, 10bR)-2-(acetyloxy)-1, 2, 3, 4, 4a, 10b-]

hexahydro-8,9-dimethoxy-6-phenanthridinyl]phenyl]-4-methyl-, rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865291-77-6 CAPLUS

CN Benzenesulfonamide, N-[4-[(2R,4aR,10bR)-2-(acetyloxy)-1,2,3,4,4a,10b-hexahydro-8,9-dimethoxy-6-phenanthridinyl]phenyl]-N,4-dimethyl-, rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865291-78-7 CAPLUS

CN Benzenesulfonamide, N-[4-[(2R,4aR,10bR)-2-(acetyloxy)-1,2,3,4,4a,10b-hexahydro-8,9-dimethoxy-6-phenanthridinyl]phenyl]-4-fluoro-, rel- (CA INDEX NAME)

RN 865291-79-8 CAPLUS

CN Benzenesulfonamide, N-[4-[(2R,4aR,10bR)-2-(acetyloxy)-1,2,3,4,4a,10b-hexahydro-8,9-dimethoxy-6-phenanthridinyl]-2-methylphenyl]-4-methyl-, rel-(CA INDEX NAME)

Relative stereochemistry.

RN 865291-81-2 CAPLUS

CN Benzenesulfonamide, N-[[4-[(2R,4aR,10bR)-2-(acetyloxy)-1,2,3,4,4a,10b-hexahydro-8,9-dimethoxy-6-phenanthridinyl]phenyl]methyl]-4-methyl-, rel-(CA INDEX NAME)

RN 865291-82-3 CAPLUS

CN Methanesulfonamide, N-[4-[(2R,4aR,10bR)-2-(acetyloxy)-8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-phenanthridinyl]phenyl]-, rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865291-83-4 CAPLUS

CN Benzenesulfonamide, N-[4-[(2R,4aR,10bR)-2-(acetyloxy)-8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-phenanthridinyl]phenyl]-4-methyl-, rel- (CA INDEX NAME)

RN 865291-84-5 CAPLUS

CN Benzenesulfonamide, N-[4-[(2R,4aR,10bR)-2-(acetyloxy)-8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-phenanthridinyl]phenyl]-4-fluoro-, rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865291-85-6 CAPLUS

CN Benzenesulfonamide, N-[[4-[(2R,4aR,10bR)-2-(acetyloxy)-8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-phenanthridinyl]phenyl]methyl]-4-methyl-, rel- (CA INDEX NAME)

RN 865291-86-7 CAPLUS

CN Benzenesulfonamide, N-[4-[(2R,4aR,10bR)-2-(acetyloxy)-9-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-phenanthridinyl]phenyl]-4-methyl-, rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865291-87-8 CAPLUS

CN Benzenesulfonamide, N-[[4-[(2R,4aR,10bR)-2-(acetyloxy)-9-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-phenanthridinyl]phenyl]methyl]-4-methyl-, rel- (CA INDEX NAME)

21/08/2009

RN 865292-08-6 CAPLUS

CN Benzenesulfonamide, 4-[(2R,4aR,10bR)-2-(acetyloxy)-1,2,3,4,4a,10b-hexahydro-8,9-dimethoxy-6-phenanthridinyl]-N,N-dipropyl-, rel- (CA INDEX NAME)

Page 16

Relative stereochemistry.

RN 865292-09-7 CAPLUS

CN Benzenesulfonamide, 4-[(2R,4aR,10bR)-2-(acetyloxy)-9-ethoxy-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-phenanthridinyl]-N,N-dipropyl-, rel- (CA INDEX NAME)

21/08/2009

RN 865292-10-0 CAPLUS

CN Benzenesulfonamide, 4-[(2R,4aR,10bR)-2-(acetyloxy)-9-ethoxy-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-phenanthridinyl]-N-(2-methoxyethyl)-N-methyl-, rel-(CA INDEX NAME)

Page 17

Relative stereochemistry.

RN 865292-11-1 CAPLUS

CN 2-Phenanthridinol, 8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-[4-(1-pyrrolidinylsulfonyl)phenyl]-, 2-acetate, (2R,4aR,10bR)-rel- (CA INDEX NAME)

21/08/2009

RN 865292-13-3 CAPLUS

CN 2-Phenanthridinol, 8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-[3-(1-pyrrolidinylsulfonyl)phenyl]-, 2-acetate, (2R,4aR,10bR)-rel- (CA INDEX NAME)

Page 18

Relative stereochemistry.

RN 865292-14-4 CAPLUS

CN Benzenesulfonamide, 4-[(2R,4aR,10bR)-2-(acetyloxy)-8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-phenanthridinyl]-N,N-dipropyl-, rel-(CA INDEX NAME)

RN 865292-15-5 CAPLUS

CN 2-Phenanthridinol, 8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-[3-(4-morpholinylsulfonyl)phenyl]-, 2-acetate, (2R,4aR,10bR)-rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865292-16-6 CAPLUS

CN Benzenesulfonamide, 3-[(2R,4aR,10bR)-2-(acetyloxy)-8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-phenanthridinyl]-N,N-dimethyl-, rel-(CA INDEX NAME)

RN 865292-17-7 CAPLUS

CN Benzenesulfonamide, 3-[(2R,4aR,10bR)-2-(acetyloxy)-8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-phenanthridinyl]-N-cyclopropyl-, rel-(CA INDEX NAME)

Relative stereochemistry.

RN 865292-18-8 CAPLUS

CN Benzenesulfonamide, 3-[(2R,4aR,10bR)-2-(acetyloxy)-8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-phenanthridinyl]-N,N-bis(2-methoxyethyl)-, rel- (CA INDEX NAME)

RN 865292-19-9 CAPLUS

CN 2-Phenanthridinol, 8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-[3-[(4-methyl-1-piperazinyl)sulfonyl]phenyl]-, 2-acetate, (2R,4aR,10bR)-rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865292-20-2 CAPLUS

CN 2-Phenanthridinol, 1,2,3,4,4a,10b-hexahydro-8,9-dimethoxy-6-[3-(methylsulfonyl)phenyl]-, 2-acetate, (2R,4aR,10bR)-rel- (CA INDEX NAME)

RN 865292-21-3 CAPLUS

CN 2-Phenanthridinol, 9-ethoxy-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-[4-(methylthio)phenyl]-, 2-acetate, (2R,4aR,10bR)-rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865292-22-4 CAPLUS

CN 2-Phenanthridinol, 9-ethoxy-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-[4-(methylthio)phenyl]-, 2-acetate, (2R,4aR,10bR)- (CA INDEX NAME)

Absolute stereochemistry.

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                    865291-66-3P
                                    865291-67-4P
ΤT
     865291-68-5P
                    865291-69-6P
                                    865291-70-9P
     865291-71-0P
                    865291-72-1P
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                    865291-75-4P
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     865291-89-0P
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     865291-92-5P
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     865292-07-5P
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     865292-35-9P
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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(Uses)

(inhibitor; preparation of thio-containing phenylphenanthridines as PDE4 inhibitors for treatment of respiratory diseases)

RN 865291-65-2 CAPLUS

CN Benzenesulfonamide, N-[4-[(2R, 4aR, 10bR)-1, 2, 3, 4, 4a, 10b-hexahydro-2-hydroxy-8, 9-dimethoxy-6-phenanthridinyl]phenyl]-N, 4-dimethyl-, rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865291-66-3 CAPLUS

CN Benzenesulfonamide, 4-fluoro-N-[4-[(2R,4aR,10bR)-1,2,3,4,4a,10b-hexahydro-2-hydroxy-8,9-dimethoxy-6-phenanthridinyl]phenyl]-, rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865291-67-4 CAPLUS

CN Benzenesulfonamide, N-[4-[(2R,4aR,10bR)-1,2,3,4,4a,10b-hexahydro-2-hydroxy-8,9-dimethoxy-6-phenanthridinyl]-2-methylphenyl]-4-methyl-, rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865291-68-5 CAPLUS

CN Benzenesulfonamide, N-[[4-[(2R,4aR,10bR)-1,2,3,4,4a,10b-hexahydro-2-hydroxy-8,9-dimethoxy-6-phenanthridinyl]phenyl]methyl]-4-methyl-, rel-(CA INDEX NAME)

Page 24

Relative stereochemistry.

RN 865291-69-6 CAPLUS

CN Methanesulfonamide, N-[4-[(2R,4aR,10bR)-8-(diffuoromethoxy)-1,2,3,4,4a,10b-hexahydro-2-hydroxy-9-methoxy-6-phenanthridinyl]phenyl]-, rel- (CA INDEX NAME)

RN 865291-70-9 CAPLUS

CN Benzenesulfonamide, N-[4-[(2R,4aR,10bR)-8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-2-hydroxy-9-methoxy-6-phenanthridinyl]phenyl]-4-methyl-, rel-(CA INDEX NAME)

Relative stereochemistry.

RN 865291-71-0 CAPLUS

CN Benzenesulfonamide, N-[4-[(2R,4aR,10bR)-8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-2-hydroxy-9-methoxy-6-phenanthridinyl]phenyl]-4-fluoro-, rel-(CA INDEX NAME)

RN 865291-72-1 CAPLUS

CN Benzenesulfonamide, N-[[4-[(2R,4aR,10bR)-8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-2-hydroxy-9-methoxy-6-phenanthridinyl]phenyl]methyl]-4-methyl-, rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865291-73-2 CAPLUS

CN Benzenesulfonamide, N-[4-[(2R,4aR,10bR)-9-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-2-hydroxy-8-methoxy-6-phenanthridinyl]phenyl]-4-methyl-, rel-(CA INDEX NAME)

RN 865291-74-3 CAPLUS

CN Benzenesulfonamide, N-[[4-[(2R,4aR,10bR)-9-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-2-hydroxy-8-methoxy-6-phenanthridinyl]phenyl]methyl]-4-methyl-, rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865291-75-4 CAPLUS

CN Benzenesulfonamide, N-[4-[(2R,4aR,10bR)-1,2,3,4,4a,10b-hexahydro-2-hydroxy-8,9-dimethoxy-6-phenanthridinyl]phenyl]-4-methyl-, rel- (CA INDEX NAME)

RN 865291-88-9 CAPLUS

CN Benzenesulfonamide, 4-[(2R,4aR,10bR)-1,2,3,4,4a,10b-hexahydro-2-hydroxy-8,9-dimethoxy-6-phenanthridinyl]-N,N-dipropyl-, rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865291-89-0 CAPLUS

CN Benzenesulfonamide, 4-[(2R,4aR,10bR)-9-ethoxy-1,2,3,4,4a,10b-hexahydro-2-hydroxy-8-methoxy-6-phenanthridinyl]-N,N-dipropyl-, rel- (CA INDEX NAME)

RN 865291-90-3 CAPLUS

CN Benzenesulfonamide, 4-[(2R,4aR,10bR)-9-ethoxy-1,2,3,4,4a,10b-hexahydro-2-hydroxy-8-methoxy-6-phenanthridinyl]-N-(2-methoxyethyl)-N-methyl-, rel-(CA INDEX NAME)

Relative stereochemistry.

RN 865291-91-4 CAPLUS

CN 2-Phenanthridinol, 8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-[4-(1-pyrrolidinylsulfonyl)phenyl]-, (2R,4aR,10bR)-rel- (CA INDEX NAME)

RN 865291-92-5 CAPLUS

CN 2-Phenanthridinol, 8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-[4-(1-piperidinylsulfonyl)phenyl]-, (2R,4aR,10bR)-rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865291-93-6 CAPLUS

CN 2-Phenanthridinol, 8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-[3-(1-pyrrolidinylsulfonyl)phenyl]-, (2R,4aR,10bR)-rel- (CA INDEX NAME)

RN 865291-94-7 CAPLUS

CN Benzenesulfonamide, 4-[(2R,4aR,10bR)-8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-2-hydroxy-9-methoxy-6-phenanthridinyl]-N,N-dipropyl-, rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865291-95-8 CAPLUS

CN 2-Phenanthridinol, 8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-[4-(4-morpholinylsulfonyl)phenyl]-, (2R,4aR,10bR)-rel- (CA INDEX NAME)

RN 865291-96-9 CAPLUS

CN 2-Phenanthridinol, 8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-[3-(4-morpholinylsulfonyl)phenyl]-, (2R,4aR,10bR)-rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865291-97-0 CAPLUS

CN 2-Phenanthridinol, 8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-[3-(1-piperidinylsulfonyl)phenyl]-, (2R,4aR,10bR)-rel- (CA INDEX NAME)

RN 865291-98-1 CAPLUS

CN Benzenesulfonamide, 3-[(2R,4aR,10bR)-8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-2-hydroxy-9-methoxy-6-phenanthridinyl]-N,N-dimethyl-, rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865291-99-2 CAPLUS

CN Benzenesulfonamide, N-cyclopropyl-3-[(2R,4aR,10bR)-8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-2-hydroxy-9-methoxy-6-phenanthridinyl]-, rel-(CA INDEX NAME)

RN 865292-00-8 CAPLUS

CN Benzenesulfonamide, 3-[(2R,4aR,10bR)-8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-2-hydroxy-9-methoxy-6-phenanthridinyl]-N,N-bis(2-methoxyethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865292-01-9 CAPLUS

CN 2-Phenanthridinol, 8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-[3-[(4-methyl-1-piperazinyl)sulfonyl]phenyl]-, (2R,4aR,10bR)-rel- (CA INDEX NAME)

RN 865292-02-0 CAPLUS

CN 2-Phenanthridinol, 9-(2,2-difluoroethoxy)-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-[3-[(4-methyl-1-piperazinyl)sulfonyl]phenyl]-, (2R,4aR,10bR)-rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865292-03-1 CAPLUS

CN 2-Phenanthridinol, 9-(2,2-difluoroethoxy)-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-[4-(1-pyrrolidinylsulfonyl)phenyl]-, (2R,4aR,10bR)-rel- (CA INDEX NAME)

RN 865292-04-2 CAPLUS

CN 2-Phenanthridinol, 1,2,3,4,4a,10b-hexahydro-8,9-dimethoxy-6-[3-(methylsulfonyl)phenyl]-, (2R,4aR,10bR)-rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865292-05-3 CAPLUS

CN 2-Phenanthridinol, 9-ethoxy-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-[4-(methylthio)phenyl]-, (2R,4aR,10bR)-rel- (CA INDEX NAME)

RN 865292-06-4 CAPLUS

CN 2-Phenanthridinol, 9-ethoxy-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-[4-(methylthio)phenyl]-, (2R,4aR,10bR)- (CA INDEX NAME)

Absolute stereochemistry.

RN 865292-07-5 CAPLUS

CN 2-Phenanthridinol, 9-(2,2-difluoroethoxy)-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-[4-(methylthio)phenyl]-, (2R,4aR,10bR)-rel- (CA INDEX NAME)

 ${\tt Relative \ stereochemistry.}$

RN 865292-23-5 CAPLUS

CN 2-Phenanthridinol, 9-ethoxy-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-[4-(methylsulfinyl)phenyl]-, (2R,4aR,10bR)- (CA INDEX NAME)

Absolute stereochemistry.

RN 865292-34-8 CAPLUS

CN 2-Phenanthridinol, 9-(2,2-difluoroethoxy)-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-[3-(methylthio)phenyl]-, (2R,4aR,10bR)-rel- (CA INDEX NAME)

Relative stereochemistry.

RN 865292-35-9 CAPLUS

CN 2-Phenanthridinol, 9-(2,2-difluoroethoxy)-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-[3-(methylsulfinyl)phenyl]-, (2R,4aR,10bR)-rel- (CA INDEX NAME)

IT 1024706-84-0 1024732-41-9 1024734-74-4

1024736-09-1 1024737-50-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of thio-containing phenylphenanthridines as PDE4 inhibitors for treatment of respiratory diseases)

RN 1024706-84-0 CAPLUS

CN 2-Phenanthridinol, 8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-[4-(1-piperidinylsulfonyl)phenyl]-, 2-acetate, (2R,4aR,10bR)-rel- (CA INDEX NAME)

Relative stereochemistry.

RN 1024732-41-9 CAPLUS

CN 2-Phenanthridinol, 8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-[4-(4-morpholinylsulfonyl)phenyl]-, 2-acetate, (2R,4aR,10bR)-rel- (CA INDEX NAME)

RN 1024734-74-4 CAPLUS

CN 2-Phenanthridinol, 8-(difluoromethoxy)-1,2,3,4,4a,10b-hexahydro-9-methoxy-6-[3-(1-piperidinylsulfonyl)phenyl]-, 2-acetate, (2R,4aR,10bR)-rel- (CA INDEX NAME)

Relative stereochemistry.

RN 1024736-09-1 CAPLUS

CN 2-Phenanthridinol, 9-(2,2-difluoroethoxy)-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-[3-[(4-methyl-1-piperazinyl)sulfonyl]phenyl]-, 2-acetate, (2R,4aR,10bR)-rel- (CA INDEX NAME)

RN 1024737-50-5 CAPLUS

CN 2-Phenanthridinol, 9-(2,2-difluoroethoxy)-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-[4-(1-pyrrolidinylsulfonyl)phenyl]-, 2-acetate, (2R,4aR,10bR)-rel- (CA INDEX NAME)

Relative stereochemistry.

IT 1024780-68-4P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of thio-containing phenylphenanthridines as PDE4 inhibitors for treatment of respiratory diseases)

RN 1024780-68-4 CAPLUS

CN 2-Phenanthridinol, 9-(2,2-difluoroethoxy)-1,2,3,4,4a,10b-hexahydro-8-methoxy-6-[3-(1-pyrrolidinylsulfonyl)phenyl]-, 2-acetate, (2R,4aR,10bR)-rel- (CA INDEX NAME)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Title compds. I [R1 = OH, alkoxy, cycloalkoxy, etc.; R2 = OH, cycloalkylmethoxy, cycloalkoxy, etc. or R1 and R2 together form alkylenedioxy group; R3 = H or alkyl; R4 = OR9 and R5 = H or alkyl or R4 = H or alkyl and R5 = OR9; R6 = H or alkyl; R7 = (un)substituted guanidinyl; R8 = H, halo, nitro, etc.; R9 = H, alkyl, alkoxyalkyl, etc.] and their pharmaceutically acceptable salts, are prepared and disclosed as phosphodiesterase 4 (PDE4) inhibitors. Thus, e.g., II was prepared by coupling of 4-((2RS,4aRS,10bRS)-2-acetoxy-8,9-dimethoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-benzoic acid with the resp. guanidinyl derivative followed by hydrolysis. The activity of I was evaluated using scintillation proximity assays and it was revealed that selected compds. of the invention displayed -log IC50 values higher than 7.5. I as inhibitor of PDE4 should provide useful in the treatment of respiratory disorders. Pharmaceutical compns. comprising I are disclosed.

AN 2005:902858 CAPLUS

DN 143:248297

TI Preparation of guanidinyl hydroxyphenylphenanthridines as PDE4 inhibitors

IN Schmidt, Beate; Flockerzi, Dieter; Hatzelmann, Armin; Zitt, Christof; Barsig, Johannes; Marx, Degenhard; Kley, Hans-Peter; Kautz, Ulrich

PA Altana Pharma A.-G., Germany

SO PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

WO 2005077906 A1 20050825 WO 2005-EP50708 20050217

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                   1132891-92-9P
ΙT
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation of guanidinyl hydroxyphenylphenanthridines as PDE4 inhibitors)
RN
     862993-79-1 CAPLUS
     Carbamimidothioic acid, [4-[(2R, 4aR, 10bR)-2-(acetyloxy)-1, 2, 3, 4, 4a, 10b-
CN
     hexahydro-8,9-dimethoxy-6-phenanthridinyl]benzoyl]-, methyl ester, rel-
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Relative stereochemistry.

(9CI) (CA INDEX NAME)

RN 1132891-92-9 CAPLUS

CN Carbamimidothioic acid, N-[4-[(2R, 4aR, 10bR)-2-(acetyloxy)-9-(difluoromethoxy)-1, 2, 3, 4, 4a, 10b-hexahydro-8-methoxy-6-phenanthridinyl]benzoyl]-, methyl ester, rel- (CA INDEX NAME)

Relative stereochemistry.

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT